

REMARKS

Claims 1-7 and 9-12 are all the claims pending in the application. Claims 1, 3, 4 and 5 have been amended and claim 8 has been canceled.

Claim 1 has been amended to delete "in a state that the crosslinking polymer is not polymerized, the crosslinking polymer," and "in the molecule" from claim 1. Claim 3 has been amended to incorporate the subject matter of claim 8, which has been canceled. Claims 4 and 5 have been amended to depend from claim 3.

Entry of the above amendments is respectfully requested.

Initially, claims 10-12 are process claims which depend from claim 1. Accordingly, Applicants respectfully request rejoinder of process claims 10-12 upon allowance of the product claims.

I. Response to Rejection of Claims 1-9 under 35 U.S.C. § 112, first paragraph

Claims 1-9 are rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement. Basically, the Examiner asserts that "in a state that crosslinking polymer is not polymerized" is a negative limitation and that the specification does not support this negative limitation.

Applicants respectfully traverse the rejection.

Without conceding the merits of the rejection, claim 1 has been amended to delete "in a state that the crosslinking polymer is not polymerized, the crosslinking polymer". Claim 1 recites "a crosslinking polymer". It is submitted that "crosslinking" as an adjective connotes that the polymer has not yet been crosslinked but rather is crosslinkable.

In view of the above, withdrawal of the rejection is respectfully requested.

II. Response to Rejection of Claims 1-9 under 35 U.S.C. § 112, second paragraph

Claims 1-9 are rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite.

Specifically, the Examiner asserts that there is insufficient antecedent basis for "the molecule" in claim 1. Claim 1 has been amended to delete the phrase "in the molecule" from claim 1.

Regarding claims 3-5, the Examiner asserts that the limitation "other radical-polymerizable monomer" is open-ended where as the support for this limitation in the specification is finite. *See* page 7.

To meet the requirements of § 112, second paragraph, the claims must be sufficiently definite for one to reasonably determine their scope. MPEP § 706.03(d). It is respectfully submitted that, as currently written, the limitations of claims 3-5 are definite and that one of ordinary skill in the art would be apprised of the scope of the invention and that the claims comply with §112, second paragraph.

Nonetheless, claim 3 has been amended to recite that the other radical-polymerizable monomer is at least one selected from (meth)acrylates of formula (III) and vinyl ester represented by formula (IV).

In view of the above, withdrawal of the rejection is respectfully requested.

III. Response to Rejection of Claims 1-9 under 35 U.S.C. § 103(a)

Claims 1-9 are still rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Yuji et al. (JP 2002-110245; hereinafter "JP '245") in view of Nakagawa. The Examiner's position is not repeated herein in its entirety.

Applicants respectfully traverse the rejection.

It is respectfully submitted that one of ordinary skill in the art would not combine JP '245 and Nakagawa to arrive at the claimed invention.

Nakagawa discloses a basic concept that "it is assured that a crosslinked material layer can certainly be formed in the interior of the porous material, making it possible to obtain a separator which can certainly absorb the liquid electrolyte by the interior thereof". *See* page 2, [0022]. In the coating process of Nakagawa, although it is possible to prepare a battery comprising a reduced amount of liquid electrolyte by improving the wettability of the separator (*see* page 1, [0015] to page 2, [0016]), most of the liquid electrolyte exists in a state that it is uncaught by the crosslinked material layer (*see* page 8, [0082]). In other words, the crosslinked material layer of Nakagawa is like a sponge impregnated with the liquid electrolyte.

In contrast, JP '245 discloses a basic concept that a solidification (gelatification) of electrolyte is necessary in order to avoid danger, such as a leaking of electrolyte, explosion, and ignition. *See* page 16, [0002]. Additionally, in JP '245, it is preferable that there is no bleeding of the electrolyte from the gel. *See* page 21, [0008]. Thus, the liquid electrolyte of JP '245 exists in a state that it is caught by the crosslinked material layer (gel). Furthermore, JP '245 discloses that the bleeding of the electrolyte is not preferable in Table 2 (*see* page 39-41, [0029]), and the results in Table 2 are disclosed as the Comparative Example. Accordingly, the state of liquid electrolyte desired by Nakagawa is not preferred in JP '245.

Hence, the disclosure of JP '245 teaches away from Nakagawa, and thus one of ordinary skill in the art would not be motivated to combine JP '245 and Nakagawa.

For at least the above reasons, it is respectfully submitted that a *prima facie* case of obviousness has not been established, and that claim 1 is patentable over the cited art.

In addition, each of claims 2-7 and 9 depend, directly or indirectly, from claim 1, and thus it is respectfully submitted that these claims are patentable for at least the same reasons

as claim 1.

In view of the above, withdrawal of the rejection is respectfully requested.

IV. Response to Nonstatutory Obviousness-type Double Patenting Rejection

Claims 1-12 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as allegedly being unpatentable over claims 1-17 of copending Application Nos. 11/267,404 and 10/569,417.

Without conceding the merits of the rejections, it is respectfully requested that the provisional non-statutory double-patenting rejections be held in abeyance.

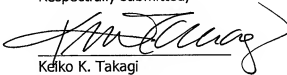
V. Conclusion

For the foregoing reasons, reconsideration and allowance of claims 1-7 and 9-12 is respectfully requested.

If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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